



Kingdom of Lesotho



Statistical Report

NO 20 of 2017

2016/2017 Crop Forecasting Report



Bureau of Statistics
PO Box 455, Maseru 100, Lesotho
Tel: +266 22 323 852,+266 22 326 393
Fax: +266 310177
E-mail: agric@bos.gov.ls
Website: www.bos.gov.ls

Mission: To coordinate the National Statistical System(NSS) and produce accurate, timely and reliable culturally relevant and internationally comparable statistical data for evidence-based planning, decision making, research, policy, program formulation and monitoring and evaluation to satisfy the needs of users and producers.

Table of Contents	Page
Table of Contents.....	i
Technical Note.....	iv
Preface.....	v
Executive Summary.....	vi
1.0 Introduction.....	1
1.1 Uses of Crop Forecasts.....	1
2.0 Sampling Procedure and Coverage.....	2
2.1 Data Collection.....	2
3.0 The Survey Findings.....	2
3.1 Maize.....	3
3.1.1 Trend of Area Planted to Maize.....	4
3.1.2 Trend of Maize Yield.....	4
3.1.3 Maize Production Trend.....	5
3.2 Sorghum.....	6
3.2.1 Trend of Area Planted to Sorghum.....	7
3.2.2 Trend of Sorghum Yield.....	7
3.2.3 Sorghum Production Trend.....	8
3.3 Wheat.....	9
3.3.1 Trend of Area Planted to Wheat.....	9
3.3.2 Trend of Wheat Yield	10
3.3.3 Trend of Wheat Production.....	11
4.0 Availability, Utilization and Consumption of Cereals.....	11
5.0 Food Balance Sheet.....	13
Annex	15

List of Tables	Page
Table 1: Area Planted, Yield and Production of Maize by District for 2016/2017 Agricultural Year.....	3
Table 2: Area Planted (ha)to Maize by District, 2012/2013 to 2016/2017 Agricultural Years.....	4
Table 3: Maize Production (mt) by District, 2012/2013 to 2015/2016 Agricultural Years and 2016/2017 Forecasts	5
Table 4: Area Planted, Yield and Production of Sorghum by District, 2016/2017 Agricultural Year.....	6
Table 5: Area Planted (ha) to Sorghum by District from 2012/2013 to 2016/2017 Agricultural Years.....	7
Table 6: Sorghum Production (mt) by District, 2012/2013 to 2015/2016Agricultural Years and 2016/2017 Forecasts.....	8
Table 7: Area Planted, Yield and Production of Summer and Winter Wheat by District, 2016/2017 Agricultural Year	9
Table 8: Area Planted (ha) to Summer and Winter Wheat from 2012/2013 to 2016/2017 Agricultural Years.....	10
Table 9: Wheat Production (mt) by District, 2012/2013 to 2016/2017Agricultural Years	11
Table 10: Total Availability and Utilization of Cereals from 2011/2012 to 2015/2016 Marketing Years.....	12
Table 11: Annual Cereal Balance Sheet for the Marketing Year 2017/2018.....	14

List of Figures	Page
Figure 1: Trend of Maize Yield (mt/ha), 2012/2013 to 2016/2017 Agricultural Years.....	5
Figure 2: Trend of Sorghum Yield (mt/ha), 2012/2013 to 2016/2017 Agricultural Years.....	7
Figure 3: Wheat Yield (mt/ha), 2012/2013 to 2016/2017 Agricultural Years.....	10

Technical Note

- Farming Household is an economic unit of Agricultural production under single management comprising all livestock kept and land used wholly or partly for agricultural production purposes, without regard to title, legal form or size.
- Production is defined as overall crop-output obtained from the area planted.
- Yield is production per area harvested.
- Availability of cereals includes; previous stock attained in the past Agricultural Year, production of the current year, cereals purchased by the households and those received as gifts and incoming exchange of cereals with other commodities.
- Total utilization refers to the quantity of cereals used by households inclusive of the stock available in a Marketing Year. Utilization of cereals consists of sales of cereals and those given to friends or relatives, outgoing exchange with other commodities, other uses (seeds, animal feeds) and current stock available at the date of interview.

Preface

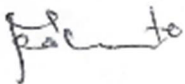
In this publication the Bureau of Statistics (BOS) reports on the crop forecasts of three major crops: Maize, Sorghum and Wheat for 2016/2017 Agricultural Year. Crop forecasting is a process of estimating the most likely yield or production of a crop on the basis of known facts at the time of making the forecast. Assumptions used for forecasts are based on conditions such as weather, damage by pests, production of crops between date of forecast and final harvest. Crop forecasting is based on a sub-sample of the on-going annual Agricultural Production Survey (APS). A maximum of five fields for each crop per Primary Sampling Unit (PSU) constituted the sample for the crop forecasting exercise that covered summer season only.

The results of this survey are expected to inform Government planners, policy makers and the private sector with forecasted crop production so as to make informed and effective decisions concerning availability of food in the country and to make timely and necessary preparations in the event of a likely food deficit or surplus.

I would like to pay special thanks to Agriculture and Food Security Statistics Division (AFSSD) and BOS Field Organization staff for their valuable contribution during data collection, processing, analysis and report writing.

Gratitude is due to Food and Agriculture Organization (FAO) for their support during data collection and to households who were selected for Crop Forecasting without whose participation, understanding and patience, this task would not have been easy to achieve.

M. Molato

A handwritten signature in cursive script, appearing to read 'M. Molato', written in dark ink.

Director of Statistics

Executive Summary

Crop forecasting is a process of estimating the most likely yield and production of crop on the basis of known facts at the time of forecasting. Assumptions used for forecast are based on conditions such as weather and damage by pests. The other important assumption is that there is no change in production of crops between date of forecast and final harvest.

This report is divided into six sections. Section One is the introduction, elaborating on the background of crop forecasting and the uses of crop forecasts. Methodological issues such as sampling procedures, coverage and data collection are dealt with in Section Two.

Section Three presents the findings of the 2016/2017 Crop Forecasting Survey. The findings revealed that area planted to maize, sorghum and wheat for 2016/2017 was 174,500ha, 46,591ha and 12,064ha respectively. Yield of maize is estimated at 1.15, sorghum at 0.61 and wheat at 0.83 metric tonnes. Production of wheat for 2015/2016 Agricultural Year is estimated at 10,028mt while maize and sorghum production is forecasted to be 200,183mt and 28,191mt respectively.

Section Four covers Availability, Utilization and Consumption of cereals. The findings revealed that availability of maize compared to the previous year had decreased by 84.5 percent, utilization also decreased by 87.6 percent.

1.0 Introduction

Lesotho has been undertaking Agricultural Production Survey (APS) annually since 1973/1974 Agricultural Year. The APS estimates are usually available by the end of October for summer and winter crops. In addition to APS, Bureau of Statistics (BOS) conducts Crop Forecasting Survey (CFS) as early as April every year. The main purpose of the forecasts is to inform the planners and policy makers about the expected crop production in order to make effective decisions concerning availability of food in the country and to make necessary preparations if there is shortage of food.

Crop forecasting is a process of estimating the most likely yield and production of cereals on the basis of known facts at the time of making the forecast. Assumptions used for forecast are based on conditions such as weather and damage by pests. Forecasts assume that there is no change in production of crops between date of forecasting and final harvest.

It should be noted that crop forecasting is undertaken at the time when wheat is being harvested, therefore, the results will reflect the final production estimates. Normally, the results of Maize and Sorghum from the CFS, though are subject to sampling error, do not differ much from those of the actual APS. The report also includes total availability and utilization of cereals.

1.1 Uses of Crop Forecasts

- Government requires information in advance regarding production as it is an important factor in measuring national income. In countries which are not self-sufficient in food like Lesotho, forecasts of local farmers' production are needed to ascertain the quantities of cereals needed in the country for the following agricultural year.
- Crop Forecasts can be used by public and the private sectors dealing with agriculture for providing the necessary storage adjustments and for making available credit on the basis of crop prospects or forecasts.
- Production forecasts are essential to inform all users in the forecasting of prices of agricultural inputs and household's food security.

2.0 Sampling procedure and coverage

A stratified multi-stage sampling scheme was adopted for the selection of the sample for the APS. Large enumeration areas constituted Primary Sampling Units (PSUs) and individual agricultural holdings (farming households) constituted Secondary Sampling Units (SSUs) for the estimation of land use, crop areas and livestock population. Fields under Maize, Sorghum and wheat formed the third sampling unit for the estimation of crop yield. Two sub-plots for crop cutting in each selected field formed the ultimate units for yield estimation. About 100 PSUs in the rural areas that covered about 2,000 farming households were selected. A maximum of five fields, each for Maize, Sorghum and their mixtures per PSU constituted the sample for the crop forecasting exercise that covered summer season only. Wheat which had already reached its maturity stage covers 10 fields per PSU following the APS sampling procedure. The PSUs have been selected with probability proportional to size, the size estimate; number of households being obtained from the 2016 Population and Housing Census. In each PSU, an average of 20 agricultural households was selected through systematic sampling from a list of all agricultural households.

2.1 Data collection

The crop forecasting exercise for the Agricultural Year 2016/2017 was carried out during the last two weeks of April 2017 throughout the country. Data was collected by BOS enumerators. They were closely supervised by the Field Officers, Senior Field Officers and additional Senior Officers from BOS head office in order to ensure that data was collected following the right procedures.

3.0 The Survey Findings

This section presents forecasts of Maize and Sorghum as well as actual estimates of Wheat production. Area planted and yield is used to estimate production. Area planted is measured in hectares (ha) and yield is measured in metric tons per hectare (mt/ha). Yield is considered high when it is in the range of 1.00mt/ha and above, regarded average at 0.50mt/ha and poor when it is below average. The overall area planted to all crops in the country has increased by 138.82 percent from 110,531ha of the previous year to 263,971ha. In 2016/2017 Agricultural Year, the estimated overall yield for Maize, Sorghum and Wheat is 1.15mt/ha, 0.61mt/ha and 0.83mt/ha respectively. The forecasting estimates are valid until October when the actual harvest estimates are released.

3.1 Maize

Section 3.1 covers area planted, production and yield forecasts of Maize in 2016/2017 Agricultural Year. Area planted, yield and production of Maize are shown in Table 1. Total area (174,500ha) planted to Maize had increased by 137.40 percent from 73,506ha of last year.

Maize yield for 2016/2017 is expected to be 1.15mt/ha, showing an increase of 173.81 percent compared to 0.42mt/ha of the previous year, the highest yield is expected in Maseru with 1.57mt/ha followed by Thaba-Tseka with 1.53mt/ha. An increase in Maize production is expected from 19,182mt of the previous year to 200,143mt.

Table 1: Area Planted, Yield and Production of Maize by District for 2016/2017 Agricultural Year

District	Area Planted (ha)	Yield(mt/ha)	Production(mt)
Botha-Bothe	9,461	1.03	9,782
Leribe	33,629	1.35	45,461
Berea	22,172	0.40	8,799
Maseru	33,624	1.57	52,794
Mafeteng	21,095	1.14	23,948
Mohale'sHoek	15,383	0.98	15,062
Quthing	5,315	0.84	4,478
Qacha's Nek	10,125	0.73	7,369
Mokhotlong	9,879	1.14	11,289
Thaba-Tseka	13,818	1.53	21,160
Lesotho	174,500	1.15	200,143

3.1.1 Trend of Area Planted to Maize

Area planted to Maize for a period of five years (2012/2013 to 2016/2017) is compared in Table 2. Total area planted to Maize had been fluctuating throughout these years. There was an increase of 21.2 percent in the total area planted from 2012/2013 to 2013/2014 which was followed by a decline from 2013/2014 to 2015/2016. A drastic increase from 73,506ha to 174,500ha was observed from 2015/2016 to 2016/2017.

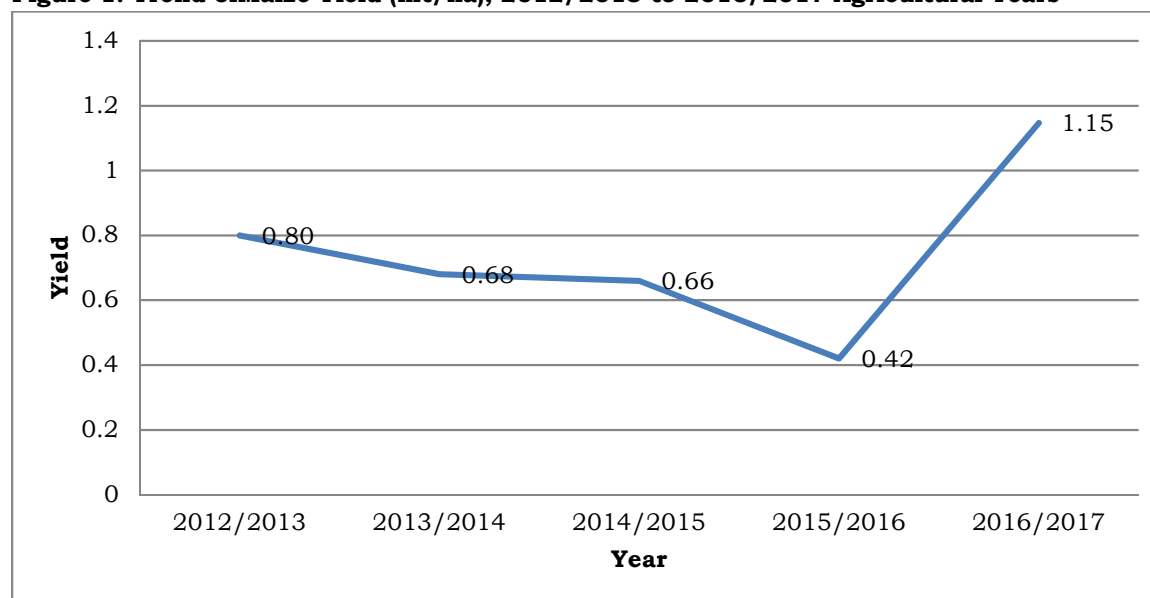
Table 2: Area Planted (ha) to Maize by District, 2012/2013 to 2016/2017 Agricultural Years

District	2012/2013	2013/2014	2014/2015	2015/2016	2016/2017
Botha- Bothe	5,220	4,000	4,765	2,451	9,461
Leribe	19,947	24,655	18,937	10,685	33,629
Berea	15,735	19,072	13,705	9,942	22,172
Maseru	18,175	19,598	22,177	13,781	33,624
Mafeteng	16,841	22,326	19,269	4,449	21,095
Mohale'sHoek	8,640	18,145	9,671	6,042	15,383
Quthing	6,766	5,535	4,438	2,934	5,315
Qacha's Nek	3,980	2,524	2,301	4,387	10,125
Mokhotlong	9,818	17,189	6,901	9,882	9,879
Thaba- Tseka	9,421	12,622	9,475	8,953	13,818
Lesotho	114,543	145,665	111,640	73,506	174,500

3.1.2 Trend of Maize Yield

A trend of Maize yield for a period of five consecutive years (2012/2013 to 2016/2017 Agricultural Years) is illustrated in Figure 1. A gradual decline from 0.80mt/ha to 0.66mt/ha was observed from 2012/2013 to 2014/2015 followed by a decline of 36.4 percent from in 2015/2016. A rapid increase is expected from 0.42mt/ha in 2015/2016 to 1.15mt/ha 2016/2017.

Figure 1: Trend of Maize Yield (mt/ha), 2012/2013 to 2016/2017 Agricultural Years



3.1.3 Maize Production Trend

Maize production trend is compared for a period of five consecutive years. Table 3 presents actual Maize production from 2012/2013 to 2015/2016 Agricultural Years and 2016/2017 forecasts by district. There was an increase of 4.4 percent in Maize production from 2012/2013 to 2013/2014, however; from 2013/2014 to 2014/2015 Maize production decreased by 27.1 percent followed by another decrease of 70.8 percent from in 2015/2016. Maize production is expected to increase from 19,182mt to 200,143mt in 2016/2017.

Table 3: Maize Production (mt) by District, 2012/2013 to 2015/2016 Agricultural Years and 2016/2017 Forecasts

District	2012/2013	2013/2014	2014/2015	2015/2016	2016/2017 Forecasts
Botha-Bothe	3,180	2,540	3,343	1,284	9,782
Leribe	13,947	14,319	18,849	3,748	45,461
Berea	13,817	15,515	6,476	528	8,799
Maseru	15,671	15,044	14,873	3,710	52,794
Mafeteng	10,069	10,191	3,001	649	23,948
Mohale'sHoek	3,529	11,167	4,068	1,551	15,062
Quthing	2,813	3,469	1,911	609	4,478
Qacha's Nek	1,696	944	396	1,191	7,369
Mokhotlong	13,493	10,531	8,197	3,742	11,289
Thaba-Tseka	8,089	6,353	4,523	2,170	21,160
Lesotho	86,304	90,072	65,636	19,182	200,143

3.2 Sorghum

This section covers area planted, yield and production of Sorghum. Table 4 presents area planted, yield and production of Sorghum by District in 2016/2017 Agricultural Year. The total area planted to Sorghum was estimated at 46,591ha and had increased from 10,421ha of the previous Agricultural Year. Maseru experienced the highest area planted to Sorghum of 8,616ha followed by Leribe with 6,910ha.

Sorghum yield in 2016/2017 is forecasted to be 0.61mt/ha. The forecasts reveal that Maseru is expected to have the highest yield of 0.73mt/ha while Mafeteng will be at 0.47mt/ha.

Sorghum production is estimated to be 28,191mt, a tremendous increase from 1,159mt of 2015/2016. Maseru is expected to have the highest Sorghum production of 6,298mt followed by Leribe with 4,637mt. The lowest Sorghum production of 366mt is expected in Mokhotlong.

Table 4: Area Planted, Yield and Production of Sorghum by District, 2016/2017 Agricultural Year

District	Area Planted (ha)	Yield(mt/ha)	Production(mt)
Botha-Bothe	2,407	0.52	1,248
Leribe	6,910	0.67	4,637
Berea	5,423	0.66	3,572
Maseru	8,616	0.73	6,298
Mafeteng	5,742	0.47	2,716
Mohale'sHoek	5,777	0.50	2,868
Quthing	2,673	0.58	1,540
Qacha's Nek	1,922	0.65	1,253
Mokhotlong	665	0.55	366
Thaba-Tseka	6,455	0.57	3,693
Lesotho	46,591	0.61	28,191

3.2.1 Trend of Area Planted to Sorghum

Table 5 shows area planted to Sorghum in hectares from 2012/2013 to 2016/2017 Agricultural Years. Area planted to Sorghum has been decreasing from 24,661ha in 2012/2013 to 10,421ha 2015/2016. However, there was an increase of 36,170ha from in 2016/2017.

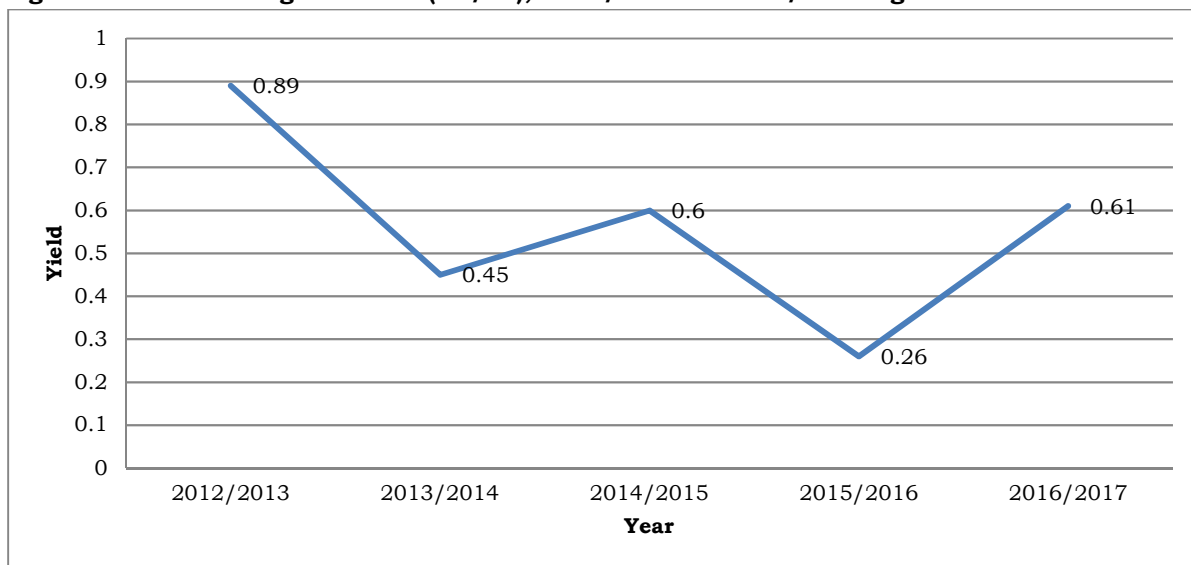
Table 5: Area Planted (ha) to Sorghum by District, 2012/2013 to 2016/2017 Agricultural Years

District	2012/2013	2013/2014	2014/2015	2015/2016	2016/2017
Botha- Bothe	1,705	1,195	671	13	2,407
Leribe	4,768	3,126	2,129	1,804	6,910
Berea	3,562	4,230	2,062	395	5,423
Maseru	3,767	2,871	2,787	3,033	8,616
Mafeteng	2,031	3,427	2,379	1,481	5,742
Mohale'sHoek	2,538	3,938	3,513	1,061	5,777
Quthing	2,823	2,549	1,763	395	2,673
Qacha's Nek	1,029	0	265	0	1,922
Mokhotlong	1,563	1,087	318	268	665
Thaba- Tseka	874	1,699	1,458	1,972	6,455
Lesotho	24,661	24,121	17,346	10,421	46,591

3.2.2 Trend of Sorghum Yield

Figure 2 depicts Sorghum yield from 2012/2013 to 2016/2017 Agricultural Years. Sorghum yield has been fluctuating over the years; it was highest in 2012/2013 (0.89mt/ha) and lowest in 2015/2016 with 0.26mt/ha. It is expected to increase to 0.61mt/ha in 2016/2017.

Figure 2: Trend of Sorghum Yield (mt/ha), 2012/2013 to 2016/2017 Agricultural Years



3.2.3 Sorghum Production Trend

Table 6 illustrates actual Sorghum production from 2012/2013 to 2015/2016 Agricultural Years and 2016/2017 forecasts by district. Sorghum production has been decreasing from 20,405mt in 2012/2013 to 1,159mt 2015/2016. A drastic increase to 28,191mt is expected from in 2016/2017.

Table 6: Sorghum Production (mt) by District, 2012/2013 to 2015/2016 Agricultural Years and 2016/2017 Forecasts

District	Actual				Forecasts
	2012/2013	2013/2014	2014/2015	2015/2016	2016/2017
Botha-Bothe	1,165	381	223	2	1,248
Leribe	2,070	1,548	1,894	57	4,637
Berea	2,358	1,916	846	2	3,572
Maseru	5,312	989	2,025	643	6,298
Mafeteng	2,208	1,736	1,193	20	2,716
Mohale'sHoek	2,228	1,614	1,998	266	2,868
Quthing	1,772	819	841	10	1,540
Qacha's Nek	1,923	0	55	0	1,253
Mokhotlong	865	326	273	16	366
Thaba-Tseka	505	515	180	143	3,693
Lesotho	20,405	9,844	9,529	1,159	28,191

3.3 Wheat

Area planted, yield and production for both Summer and Winter Wheat are discussed in section 3.3. Table 7 presents area planted, yield and production of Wheat for 2016/2017 Agricultural Year. Area planted to Wheat was 12,064ha. The highest area planted to Wheat was observed in Thaba-Tseka (2,237ha). Yield for Wheat was 0.83mt/ha in 2016/2017 Agricultural Year. Mokhotlong recorded the highest yield of 2.25mt/ha, followed by Mohale'sHoek with 1.85mt/ha. Wheat production was 10,028mt and Mokhotlong recorded the highest Production of 3,742mt.

Table 7: Area Planted, Yield and Production of Summer and Winter Wheat by District, 2016/2017 Agricultural Year

District	Area Planted (ha)	Yield(mt/ha)	Production(mt)
Botha-Bothe	270	0.60	161
Leribe	2,045	0.38	777
Berea	870	0.65	570
Maseru	1,446	0.49	711
Mafeteng	830	0.18	148
Mohale'sHoek	793	1.85	1,464
Quthing	897	0.95	848
Qacha's Nek	1,014	0.46	470
Mokhotlong	1,661	2.25	3,742
Thaba-Tseka	2,237	0.51	1,136
Lesotho	12,064	0.83	10,028

3.3.1 Trend of Area Planted to Wheat

Table 8 shows area planted to wheat in hectares from 2012/2013 to 2016/2017 Agricultural Years. Total Area planted to Wheat has been fluctuating throughout the years. There was a decrease of 37.1 percent from 2013/2014 to 2014/2015 and in 2016/2017 it decreased to 12,064ha.

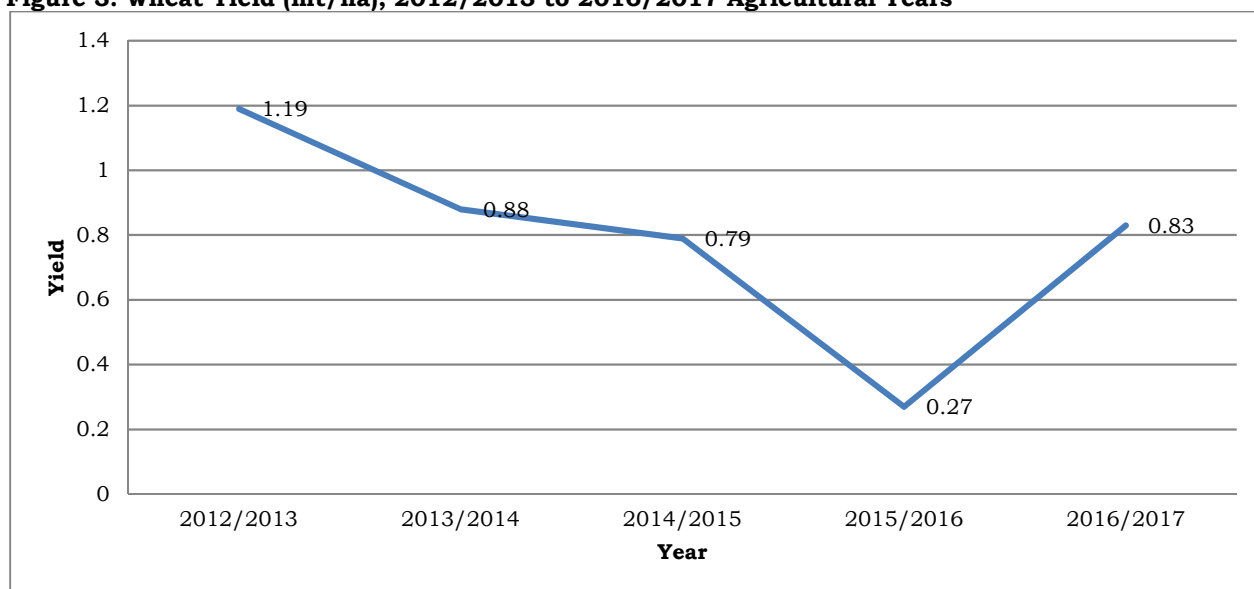
Table 8: Area Planted (ha) to Summer and Winter Wheat from 2012/2013 to 2016/2017 Agricultural Years

District	2012/2013	2013/2014	2014/2015	2015/2016	2016/2017
Botha- Bothe	705	437	396	126	270
Leribe	612	1,701	1,055	880	2,045
Berea	402	210	0	200	870
Maseru	860	1,025	729	2,844	1,446
Mafeteng	478	0	320	315	830
Mohale'sHoek	823	696	589	1,809	793
Quthing	580	721	861	1,523	897
Qacha's Nek	473	770	637	940	1,014
Mokhotlong	4,301	5,425	2,745	2,690	1,661
Thaba- Tseka	2,023	3,308	1,661	4,831	2,237
Lesotho	11,259	14,292	8,992	16,160	12,064

3.3.2 Trend of Wheat Yield

Figure 3 portrays a trend of Wheat yield for Summer and Winter from 2012/2013 to 2016/2017 Agricultural Years. Wheat yield has been declining from 1.19mt/ha in 2012/2013 to 0.27mt/ha 2015/2016; however it increased to 0.83mt/ha in 2016/2017.

Figure 3: Wheat Yield (mt/ha), 2012/2013 to 2016/2017 Agricultural Years



3.3.3 Trend of Wheat Production

The section covers a trend of Wheat production from 2012/2013 to 2016/2017 for both Summer and Winter seasons. Table 9 presents Wheat production by district from 2012/2013 to 2016/2017 Agricultural Years. Wheat production has been declining over the years. There was a decrease of 40.0 percent from 2014/2015 to 2015/2016; however there was an increase to 10,028mt in 2016/2017.

Table 9: Wheat Production (mt) by District, 2012/2013 to 2016/2017 Agricultural Years

District	2012/2013	2013/2014	2014/2015	2015/2016	2016/2017
Botha-Bothe	962	171	227	0	161
Leribe	242	763	855	396	777
Berea	186	3	0	26	570
Maseru	706	550	422	532	711
Mafeteng	321	0	252	1	148
Mohale'sHoek	347	515	294	932	1,464
Quthing	415	226	914	115	848
Qacha's Nek	939	911	192	1	470
Mokhotlong	7,135	7,078	2,511	1,044	3,742
Thaba-Tseka	2,132	2,364	1,403	1,339	1,136
Lesotho	13,385	12,582	7,069	4,386	10,028

4.0 Availability, Utilization and Consumption of Cereals

Section 4.0 covers availability, utilization and consumption of Maize, Sorghum and Wheat for 2016/2017 marketing year. Total availability of cereals is the quantity of cereals available in the households in a Marketing Year. Availability of cereals includes; previous stock attained in the past Agricultural Year, production of 2015/2016 Agricultural Year, cereals purchased by the households and those received as gifts and incoming exchange of cereals with other commodities.

Total utilization refers to the quantity of cereals used by households inclusive of the stock available in a Marketing Year. Utilization of cereals consists of sales of cereals and those given to friends or relatives, outgoing exchange with other commodities, other uses (seeds, animal feeds) and current stock available at the date of interview. Total production in this case refers to the production reported by farmers. Consumption is quantity of cereals consumed as food.

Table 10 shows that 19,840mt of Maize was available in 2016/2017 marketing year; a decrease of 84.5 percent from 127,833mt of the previous year. Utilization decreased by 87.6 percent from 28,760mt of the previous year to 3,569mt of the current marketing

year. About 16,271mt of Maize were consumed as food in 2016/2017, showing a decrease of 83.3 percent from 99,072mt in 2015/2016, the expected consumption in 2017/2018 marketing year of Maize is 15,958mt therefore farming holdings are expected to have a surplus of 184,185mt, 21,773mt and 4,107mt for Maize, Sorghum and Wheat respectively.

Table 10: Total Availability and Utilization of Cereals from 2012/2013 to 2016/2017 Marketing Years

Cereal Crops	Agricultural Years	Available	Utilization	Consumed as food	Expected consumption ¹	actual/Forecast	Deficit/Surplus ²
Maize	2012/2013	35,625	8,262	27,705	27,173	86,304	59,131
	2013/2014	102,036	4,571	77,221	80,206	90,628	10,422
	2014/2015	64,062	18,499	45,563	44,686	78,246	33,560
	2015/2016	127,833	28,760	99,072	97,167	25,435	-71,732
	2016/2017	19,840	3,569	16,271	15,958	200,143	184,185
Sorghum	2012/2013	4,293	969	3,388	3,437	20,405	16,968
	2013/2014	15,860	419	11,570	11,348	9,860	-1,488
	2014/2015	12,317	4,266	8,051	7,896	3,720	-4,176
	2015/2016	8,746	1,929	6,817	6,686	1,138	-5548
	2016/2017	8,493	1,949	6,418	6,418	28,191	21,773
Wheat	2012/2013	4,249	1,277	2,972	2,917	13,385	10,468
	2013/2014	8,966	1,364	6,376	6,253	12,582	6,329
	2014/2015	5,255	2,204	3,051	2,992	7,069	4,077
	2015/2016	8,260	2,747	5,861	5,748	4,348	-1,362
	2016/2015	9,260	3,223	6,037	5,928	10,028	4,107

¹ This is the expected consumption for the next marketing year i.e 2017//2018

² The Deficit/Surplus is only for farming households not for the whole population.

5.0 Food Balance sheet

This section covers domestic availability, requirements and domestic shortfall or surplus of Maize, Wheat and Sorghum together with their planned imports. Food balance sheet provides a sound basis for policy analysis and decision making needed to ensure food security. It also provides the basis for national estimates that are used for estimating the overall shortages or surpluses in the country.

Table 11 presents Annual Cereal Balance Sheet for the 2017/2018 Marketing Year. In general all of these three main cereals namely maize, wheat and sorghum have a domestic requirement of 349,800mt yet the domestic availability is only 290,953mt. Maize and Wheat have a deficit of 24,767mt and 39,083mt respectively. Sorghum has a surplus of 5,003mt.

Table 11: Annual Cereal Balance Sheet for the Marketing Year, 2017/2018

ANNUAL CEREAL BALANCE SHEET FOR THE 2017/2018 MARKETING YEAR				
Annual Balance sheet as at				
1stApril 2017				
Figures in (000)				
	<u>Maize</u>	<u>Wheat</u>	<u>Sorghum</u>	<u>Total</u>
<u>1. Domestic Availability</u>	220.134	42.204	28.615	290.953
1.1 Opening stock (01/April/2017)	19.991	32.176	0.424	52.591
Formal (Monitored)	19.543	30.858	0.000	50.401
On farm (monitored)	0.448	1.318	0.424	2.190
1.2 Gross Harvest	200.143	10.028	28.191	238.362
<u>2. Gross Domestic Requirements</u>	244.901	81.287	23.612	349.800
2.1 Human consumption	242.709	80.266	22.933	345.908
2.2 Feed, seeds, other uses	2.192	1.021	0.679	3.892
<u>3. Domestic Short fall/Surplus</u>	-24.767	-39.083	5.003	-58.847
<u>4. Total Planned Imports</u>	225.151	111.279	0.177	336.607
4.1 Commercial Imports	117.204	110.446	0.000	227.650
4.2 Food Aid - Agency	17.738	0.000	0.000	17.738
4.3 Food Aid - Government	0.000	0.000	0.000	0.000
4.4 Other Commercial Imports	90.209	0.833	0.177	91.219
<u>5. Imports Received</u>	21.349	0.069	0.015	21.434
5.1 Commercial Imports Received	6.941	0.000	0.000	6.941
5.2 Food Aid - Agency	6.891	0.000	0.000	6.891
5.3 Food Aid - Government	0.000	0.000	0.000	0.000
5.4 Other Commercial imports	7.517	0.069	0.015	7.602
<u>6. Expected Imports</u>	203.801	111.209	0.163	315.173
6.1 Commercial Imports Expected	110.263	110.446	0.000	220.709
6.2 Food Aid - Agency	10.847	0.000	0.000	10.847
6.3 Food Aid - Government	0.000	0.000	0.000	0.000
6.4 Other Commercial Imports Expected	82.691	0.763	0.163	83.617
<u>7. Uncovered Shortfall/import Gap</u>	-	-	-	-
<u>8. Current Stock Level on 30th April 2017</u>	17.059	32.261	0.015	49.335

Table 2: Total Availability and Utilization of Cereals for 2016/2017 Marketing Year.

	MAIZE	SORGHUM	WHEAT	TOTAL
Previous Stock 31/03/2016	4,260	1,558	1,051	6,869
Production 2016	9,323	3,683	6,071	19,077
Purchases (01/04/2016-31/03/2017)	5,084	2771	1,548	9,403
Received as gift (01/04/2016-31/03/2017)	809	312	505	1,626
Incoming Exchange with other commodities	364	169	85	618
TOTAL AVAILABILITY	19,840	8,493	9,260	37,593
Sold (01/04/2016-31/03/2017)	221	343	362	926
Given to friends or family (01/04/2016-31/03/2017)	517	386	382	1,285
Outgoing exchange(01/04/2016-31/03/2017)	192	117	140	449
Other uses(feeds and seed) (01/04/2016-31/03/2017)	2,192	679	1,021	3,892
Closing Stock (01/04/2016-31/03/2017)	447	424	1,318	2,189
TOTAL UTILAZATION	3,569	1,949	3,223	8,741
CONSUMED AS FOOD	16,271	6,544	6,037	28,852
CONSUMPTION PER WEEK	313	126	116	555
EXPECTED CONSUMPTION	15,958	6,418	5,921	28,297
FORECASTED PRODUCTION	200,143	28,191	10,028	238,362
SURPLUS/DEFICIT	184,185	21,773	4,107	210,065